

the applicants hereby respectfully request further examination and reconsideration of the subject application. The reasons for this belief in the non-obviousness of the rejected claims are presented below.

The Section 103 Rejection of Claims 1-16, 18-27 and 30-34

Claims 1-16, 18-27 and 30-34 were rejected under 35 USC 103(a) as being unpatentable over Tillman et al., U.S. Patent No. 6,496,980 (hereinafter Tillman), in view of Kim, U.S. Patent No. 6,094,636. It is contended in the Office Action that the combined teachings of Tillman and Kim teach all the elements of the rejected claims, and that it would have been obvious to incorporate the Kim teachings into Tillman to produce the applicants' claimed invention. The applicant respectfully disagrees with this contention of obviousness.

More particularly, independent Claims 1, 25, 27, 30, 33 and 34 specify that the base quality version of the audio and/or video program includes "layer data of a layered unicast having hierarchically related layers in that the lowest level layer is a base layer and each subsequently higher level layer adds enhancing information for enhancing the quality of the program that can be rendered from the layers preceding it in the hierarchy" and that requesting the base quality version of the program includes **"requesting as many layers, in the order of their position in the hierarchy starting with the base layer, as can be transmitted from the server to the client without exceeding the available bandwidth of the network"**. The Tillman-Kim combination does not teach this feature.

The Examiner acknowledges that Tillman lacks a teaching of the aforementioned claimed feature, but contends it is taught in Kim. However, Kim teaches a way to code audio data into a layered format which is scalable such that the bitrate (and so bandwidth) of each layer is optimized to the maximum rate of the transmission channel or a user-specified maximum rate (see Col. 4,

lines 4-7 & Col. 6, lines 18-23). For instance, in the example used in Kim, the overall bitrate (i.e., the maximum rate of the transmission channel or a user-specified maximum rate) is 64 Kbps. In view of this, the Kim method codes the audio data such that a 16 Kbps base layer is generated and each enhancement layer (6 in all) exhibits a bitrate interval of 8 Kbps (see Col. 9, lines 60-66). Presumably, if a higher overall bitrate was available or user-specified, the base layer would be scaled to a higher bitrate, as would the bitrate interval of each of the enhancement layers. However, Kim is silent as to the procedure a client computer would use to request the so-layered audio data. It is the Tillman reference that provides a requesting scheme. Specifically, Tillman teaches that a client requests a base layer which is saved and viewed, and if the user desires a higher quality replay, the client requests an enhancement layer or layers, which are then combined with the stored base layer to produce the higher quality replay (see Fig. 6 & Col. 10).

Thus, if the Kim teaching is combined with the Tillman requesting scheme, a base layer would be provided to the requesting client computer that exhibits the bitrate established by the Kim coding scheme. **Tillman expressly teaches that the original video data is received in the form of a base layer of the video stream only and does not include any enhancement layers (e.g., col. 7, lines 36-37).** However, this base layer is still just a base layer. It is not the base quality version claimed by the applicant because it does not include “**as many layers, in the order of their position in the hierarchy starting with the base layer, as can be transmitted from the server to the client without exceeding the available bandwidth of the network**”. The base layer cannot because the Kim coding scheme never makes the base layer equal to the overall available or specified bitrate. Rather it scales the layers, including the base layer, to fit the overall available or specified rate. Thus, the cited combination does not produce the claimed invention where the client computer initially requests **as many layers as can be transmitted without exceeding the available bandwidth of the network**. Only the applicants have realized the

advantages of this feature—namely, maximizing the quality of a base quality version of the program.

In order to deem the applicants' claimed invention unpatentable under 35 USC 103, a prima facie showing of obviousness must be made. To make a prima facie showing of obviousness, all of the claimed elements of an applicants' invention must be considered, especially when they are missing from the prior art. If a claimed element is not taught in the prior art and has advantages not appreciated by the prior art, then no prima facie case of obviousness exists. The Federal Circuit court has stated that it was error not to distinguish claims over a combination of prior art references where a material limitation in the claimed system and its purpose was not taught therein (*In Re Fine*, 837 F.2d 107, 5 USPQ2d 1596 (Fed. Cir. 1988)).

In this case, the cited combination of Tillman and Kim does not teach the applicants' claimed feature whereby **requesting the base quality version of the program includes requesting as many layers, in the order of their position in the hierarchy starting with the base layer, as can be transmitted from the server to the client without exceeding the available bandwidth of the network**. Tillman does not suggest anything more than the client initially requesting a base layer, and Kim simply provides an optimal way of coding the base layer which by its very nature is never as large as the available or user-specified maximum bandwidth. Further, the aforementioned claimed feature has the advantage of maximizing the quality of the base quality version of the program. Thus, the applicant claims a feature not taught in the cited combination, which has advantages not recognized therein. Accordingly, no prima facie case of obviousness can be established in accordance with the holding of *In Re Fine*. This lack of prima facie case of obviousness means that the rejected claims are now patentable under 35 USC 103 over Tillman in view of Kim. As such, it is respectfully requested that the rejection of Claims 1-16, 18-27 and 30-34 be reconsidered based on the non-obvious claim language:

" requesting a base quality version of the program from a server over the network, wherein the base quality version of the program comprises layer data of a layered unicast having hierarchically related layers in that the lowest level layer is a base layer and each subsequently higher level layer adds enhancing information for enhancing the quality of the program that can be rendered from the layers preceding it in the hierarchy, and **wherein requesting a base quality version of the program from a server over the network comprises requesting as many layers, in the order of their position in the hierarchy starting with the base layer, as can be transmitted from the server to the client without exceeding the available bandwidth of the network.**"

The Section 103(a) Rejection of Claims 28 and 29

Claims 28 and 29 were rejected under 35 USC 103(a) as being unpatentable over Tillman in view of Kim, and in further view of Chaddha, U.S. Patent No. 6,266,817. It is contended in the Office Action that the combined teachings of Tillman, Kim and Chaddha teach all the elements of the rejected claims, and that it would have been obvious to incorporate the Chaddha teachings into the Tillman-Kim combination to produce the applicants' claimed invention. The applicant respectfully disagrees with this contention of obviousness.

More particularly, independent Claim 28 specifies that the base quality version of the audio and/or video program includes "layer data of a layered unicast having hierarchically related layers in that the lowest level layer is a base layer and each subsequently higher level layer adds enhancing information for enhancing the quality of the program that can be rendered from the layers

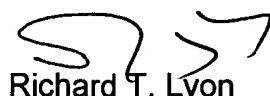
preceding it in the hierarchy” and that requesting the base quality version of the program includes **“requesting as many layers, in the order of their position in the hierarchy starting with the base layer, as can be transmitted from the server to the client without exceeding the available bandwidth of the network”**. As shown previously, the Tillman-Kim combination does not teach this feature. Chaddha is also lacking any teaching or suggestion of the feature. Thus, the Tillman-Kim-Chaddha combination does not teach the aforementioned claimed feature as well.

As the applicant claims a feature not taught in the cited combination, which has advantages not recognized therein, no prima facie case of obviousness can be established in accordance with the holding of *In Re Fine*. This lack of prima facie case of obviousness means that the rejected claims are now patentable under 35 USC 103 over Tillman in view of Kim, and in further view of Chaddha. As such, it is respectfully requested that the rejection of Claims 28 and 29 be reconsidered based on the non-obvious claim language quoted previously.

Summary

In summary, reconsideration of the rejection of Claims 1-16 and 18-34 is respectfully requested. In addition, allowance of these claims at an early date is courteously solicited.

Respectfully submitted,



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